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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/750,264 | 12/29/2000 | Erhan Guven | TI-32148 | 7390 |

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| EXAMINER | |
|---|---|
| LEVITAN, DMITRY | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2662 | |

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/750,264 | GUVEN ET AL. | |
| | Examiner | Art Unit | |
| | Dmitry Levitan | 2662 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *09 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *7-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Amendment, filed 08/09/2004, has been entered. Claims 7-10 remain pending.

***Specification***

1. The disclosure is objected to, because abbreviations or acronyms LAPM, PCM, NMM, SIU are cited throughout the specification without explanation. Applicant should provide a full explanation for the acronyms at least at their first occurrence in the specification.

2. The disclosure is objected to, because it is not understood what PCM call (11:18-20) means and what differentiate it from voice, fax or modem calls.

3. The disclosure is objected to, because table on page 18 is not properly disclosed. For example, it is not understood what X means in the table.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 8-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 7, the limitation "additionally providing the data corresponding to the next most recent blocks of data equal in number to one less than the value of said determined difference in the compared sequence numbers, to acquire data blocks corresponding to the determined lost packets" is unclear, because it was not understood as written.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 7,8 are rejected under 35 U.S.C. 102(e) as being anticipated by Vargo (US 6,167,060).

Regarding claim 7, Vargo teaches a method for reducing data loss in the event of packet loss in a modem connection over a packet network including transmitting and receiving gateways and modems (connection between Tokyo and North America on Fig. 1, including shown gateways and Internet, 3:35-49, using modems, shown on Fig. 6 and 4:56-67, 5:1-10), comprising:

Providing a packet format including a header, a sequence number and a data portion (packets, inherently containing headers and data potions, sequentially numbered 5:32-36),

Dividing said data portion into a plurality of segments (dividing the data stream sentence into packets, containing letters, as shown on Fig. 7a and 5:58-62),

Designating one of the segments as a new data segment (last packet in each packet groups as shown on Fig. 7a-d and 6:5-19),

Providing sequential blocks of modem data from the transmitting modem to the transmitting gateway (inherently part of the system, because transmitting gateways as shown on Fig. 1,

comprise modems, shown on Fig. 6, so sequential blocks of modem data are transmitted from the transmitting gateway),

Retaining a predetermined number of sequential blocks of modem data at said transmitting gateway, by dropping the oldest block and retaining the most resent block (two blocks as shown on Fig. 7b and 5:63-67, 6:1-5, as block "T" is dropped in the third packet),

Providing the most recent block of data in said new data segment of said data portion of said packet (adding block "h", as shown in the second packet on Fig. 7b),

Providing the remaining retained blocks of data in the remainder of said segments (transmitting the data stream "This is a sentence" 5:51-59),

Wherein:

Each time said transmitting gateway receives new block of data from said transmitting modem, said oldest block is dropped from said retained set of data (as shown on Fig. 7b-c and 6:5-20),

Said new block of data is encoded in the next data packet as redundant data blocks (level two redundancy 6:5-20),

Transmitting said packets from said transmitting gateway to said receiving gateway (communicating between gateways as shown on Fig. 1).

8. Regarding claim 8 (as understood), Vargo teaches a method recovering lost packet, comprising:

receiving said transmitted packets,

reading said sequence numbers of consecutively received packets to determine packet loss, including comparing the sequence number of sequentially received packets and determining the difference in the compared sequence numbers (keeping the packets sequences intact by

comparing each data packet to the previous data packet to determine packet loss or error 5:31-42),

providing the data corresponding to said designated new data segment, to said receiving modem, additionally providing the data corresponding to the next most recent blocks of data equal in number to one less than the value of said determined difference in the compared sequence numbers, to acquire data blocks corresponding to the determined lost packets (recreating lost or errored packet utilizing the system redundancy 2:49-52).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vargo in view of Grabelsky (US 6,678,250).

Vargo substantially teaches the limitations of claims 9 and 10, including a dynamical change of the redundancy level/number of sequential blocks in Fig. 7 due to the network condition 6:39-48. Vargo does not teach comparing real number of missing packets with the predetermined number of missing packets.

Grabelsky teaches comparing with the predetermined number of missing packets (comparing packet loss with alarm threshold and acting on the alarm 11:55-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add comparing with the predetermined number of missing packets of Grabelsky to the system of Vargo to improve the system operation in noisy environment by increasing the packets redundancy level.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dmitry Levitan
Patent Examiner
1/06/05

JOHN PEZZLO
PRIMARY EXAMINER